

**METHOD AND APPARATUS FOR MULTI-THREAD ACCUMULATION  
BUFFERING IN A COMPUTATION ENGINE**

**Abstract of the Invention**

5

A method and apparatus for enhancing flexibility of instruction ordering in a multi-thread processing system that performs multiply and accumulate operations is presented. A plurality of accumulation registers is provided for storing the results of an adder, wherein each of the plurality of accumulation registers corresponds to a different 10 thread of the plurality of threads. The contents of each of the plurality of accumulation registers can be selected as an input to the adder such that the present accumulated value can be added to a subsequently calculated produce to generate a new accumulated value.

□ □ □ □ □ □ □ □ □ □